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LIST	r OF DI	SCLOSURES CITED E			icant an et al.		•		
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				U.S. PATENT DOCUMENTS					
Examine Initials	r	Document Number	Date	Name		Class	Subclas	Filing	g Date
201	+ 1	4,255,519	10.03.81	Terada et al.		Oldos ,	Odboido	7 11015	- Dute
115	+ 2	4,275,149	23.06.81	Litman et al.				` -	_
11	* 3	4,816,567	28.03.89	Cabilly et al.		_			
1 1	* 4	5,534,617 .	09.07.96	Cunningham et al.					
11	+ 5	5,561,053	01.10.96	Crowley			_	- -	_
11	* 6	5,622,700	22.04.97	Jardieu et al.			-	- -	_
11	* 7	5,705,154	06.01.98	Dalie et al.			- -	- -	-
	* 8	5,750,373	12.05.98	Garrard et al.			-	- -	_
	1 9	5,821,337	13.10.98	Carter et al.				. _	_
	* 10	5,965,709	12.10.99	Presta et al.				_	
11	**11	5,994,511	30.11.99	Lowman et al		ئە		-	_
11.	1,12	6,037,453	14.03.00	Jardieu et al.		<u></u>		.	
	13	6,054,297	25.04.00	Carter et al.				- _	~
101	1,14	6,329,509	11.12.01	Jardieu et al.	•		-	`	
1///	15	6,407,213	18.06.02	Carter et al.				- -	
	.1	<u> </u>	<u> </u>	FOREIGN PATENT DOCUMENTS	3		<u>. </u>		
Examine			5 .					Transl	
Initials	*16	239, 400B1	Date 03.08.94	Country		Class	Subclas	s Yes	No
1	1.7	93/11161	10.06.93	EPO .		-			
	18	WO 92/17207	15.10.92	PCT					
1 1	+19	WO 93/04173	04.03.93	PCT		_	—		
	* 20	WO 93/16185	19.08.93	PCT			-		
	21	WO 94/20533	15.09.94	PCT					
	*22	WO 95/24481	14.09.95	PCT		_		-	
1/1/2	*23	WO 97/06822	27.02.97	PCT				-	
	OTHER DISCLOSURES (Including Author, Title, Date, Pertinent Pages, etc.)								
Mf	Alberts et al., "The Immune System" Molecular Biology of The Cell, 3d edition, New York and London: Garland Publishing, Inc., Chapter 23, pps. G-15 and 1232 (1994).								
1	Amit et al., "Three-Dimensional Structure of an Antigen-Antibody Complex at 2.8 A Resolution" Science *25 233:747-753 (Aug 1986) Barbas III et al., "In Vitro Evolution of a Neutralizing Human Antibody to Human Immunodeficiency Viru. *26 Type 1 to Enhance Affinity and Broaden Strain Cross-Reactivity." Proc. Natl. Acad. Sci. USA 91(9):3809-3813 (Apr 26, 1994)					ence			
						Virus			
	+27	Brennan et al., *	Preparation of	bispecific antibodies by chemicalence 229:81-83 (July 1985)	al rec	ombination	of mono	clonal	
M	Cacia et al., "Isomerization of an aspartic acid residue in the complementarity-determining regions of recombinant antibody to human IgE: identification and effect on binding affinity" Biochemistry 35(6):1897-1903 (Feb 13, 1996)					ons of a			
Examine	er	M. A. LA	1. /	Da	ate Cons	sidered	100		,
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation									
if not in conformance and not considered. Include copy of this form with next communication to applicant.									

FORM PTO-1449 U.S. Dept. of Commerce			Atty Docket No.	Serial No.		
		Patent and Trademark Offic	P1123R1D1C1	10/791,619		
1101	OE D	SCLOSURES CITED BY APPLICANT	Applicant	1 ''		
			Lowman et al.			
((Jse se	veral sheets if necessary)	Filing Date 3/2/04	Group /644		
		OTHER DISCLOSURES (Including Author, Title, Da				
m	وجير	Carter et al., "High Level Escherichia coli Expression and Pr Fragment." Bio/Technology, 10(2):163-167 (Feb 1992)	oduction of a Bivalent	Humanized Antibody		
110	29					
	*30	Carter et al., "Humanization of an Anti-p185HEKZ Antibody For Human Cancer Therapy" <u>Proc. Natl. Acad.</u> Sci. USA 89:4285-4289 (May 1992)				
	+31	Champe et al., "Monoclonal antibodies that block the activity of leukocyte function-associated antigen 1 recognize three discrete epitopes in the inserted domain of CD11a* <u>Journal of Biological Chemistry</u> 270:1388-1394 (1995)				
	*32	hothia and Lesk, "Canonical Structures for the Hypervariable Regions of Immunoglobulins" <u>J. Mol. Biol</u> 96:901-917 (1987)				
	*33	Chothia et al., "Domain Association in Immunoglobulin Molecules. The Packing of Variable Domains" Journal of Molecular Biology 186:651-663 (1985)				
	*34	Chothia, C. et al., "Conformations of immunoglobulin hypervariable regions" Nature 342(6252):877-883 (1989)				
	•35	Clackson et al., "Making Antibody Fragments Using Phage Display Libraries" Nature 352:624-628 (1991)				
	*36	Co et al., "Humanized antibodies for antiviral therapy" Proc. Natl. Acad. Sci. USA 88:2869-2873 (April 1991)				
	*37	Cunningham et al., "Production of an Atrial Natriuretic Peptide Variant that is Specific for Type A Receptor" EMBO Journal 13(11):2508-2515 (1994)				
	*38	Geiger and Clarke, "Deamidation, isomerization, and racemization at asparaginyl and aspartyl residues in peptides. Succinimide-linked reactions that contribute to protein degradation." Journal of Biological Chemistry 262(2):785-794 (Jan 15, 1987)				
	+39	Goding, J.W., "Conjugation of antibodies with fluorochromes: modifications to the standard methods" Journal of Immunological Methods 13(3-4):215-226 (1976)				
	*40	Hakimi et al., "The α subunit of the human IgE receptor (FCER binding" <u>Journal of Biological Chemistry</u> 265(36):22079-22081	I) is sufficient for hi (1990)	gh affinity IgE		
	*41	Hawkins et al., "Selection of Phage Antibodies by Binding Affinity Mimicking Affinity Maturation" J. Mol. Biol. 226:889-896 (1992)				
	*42	Herbert et al. <u>Dictionary of Immunology</u> , 3rd edition, Blackwell Scientific Publications pps. 77 (1985)				
	*43	Holliger et al., ""Diabodies": Small Bivalent and Bispecific Antibody Fragments." <u>Proc. Natl. Acad. Sci.</u> <u>USA</u> 90:6444-6448 (Jul 1993)				
	*44	Jones et al., "Replacing the Complementarity-Determining Regions in a Human Antibody with Those From a Mouse." <u>Nature</u> 321:522-525 (May 29, 1986)				
	*45	Kabat et al. <u>Sequences of Proteins of Immunological Interest</u> , Bethesda, MD:National Institute of Health (1987)				
	*46	Kabat Sequences of Proteins of Immunological Interest (Fourth Ed.), 4th edition pps. 41-42, 167-168 (1987)				
	*47	Kabat <u>Sequences of Proteins of Immunological Interest</u> (pgs. 662-663, 671-672, 680-681, 697, 701-702, 710, 719-720, 2275-2276), 5th edition'l (1991)				
Mf	₹48	Kettleborough et al., "Humanization of a Mouse Monoclonal Antibody by CDR-grafting: the Importance of Framework Residues on Loop Conformation" <u>Protein Engineering</u> 4(7):773-783 (1991)				
Examiner Date Considered,						
1/1/1/5 pel 6/20/05						
*Examiner: Initial if reference considered whether or not citation is in conformance with MPEP 609; draw/line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						

FORM PTO-1449 U.S. Dept. of Commerce			1449 U.S. Dept. of Commerce	Atty Docket No.	Serial No.	
Patent and Trademark Office			•	P1123R1D1C1 ,	10/791,619	
LIST OF DISCLOSURES CITED BY APPLICANT				Applicant Lowman et al.		
(Use several sheets if necessary)			veral sheets if necessary)	Filing Date	Group 1644	
			OTHER DISCLOSURES (Including Author, Title, Date	e. Pertinent Pages, etc.)	1	
-	VI	1	Kohler and Milstein., "Continuous Cultures of Fused Cells Seco		efined Specificity."	
	V/	*49				
V	<u> </u>	*50	Konig et al., "Chemical and Biological Properties of Porcine Secretin and Secretin Analogues Modified in Positions 3 and 4" Gastroenterology 72:797-800 (1977)			
		*51	Kunkel et al., "Efficient site-directed mutagenesis using uracil-containing DNA" <u>Methods in Enzymology</u> 204:125-139 (1991)			
		*52	Lowe et al., "Allergen-induced Histamine Release in Rat Mast Cells Transfected with the α Subunits of FcεRI" <u>J. Immunological Methods</u> 184:113-122 (1995)			
	T	* 53	Lowenson and Clarke, "Identification of isoaspartyl-containing sequences in peptides and proteins that are unusually poor substrates for the class II protein carboxyl methyltransferase" <u>Journal of Biological</u> Chemistry 265(6):3106-3110 (Feb 25, 1990)			
	T	*54	Lowman and Wells, "Affinity Maturation of Human Growth Hormone by Monovalent Phage Display" J. Mol. Biol. 234:564-578 (1993)			
		*55	Lowman et al., "Selecting High-Affinity Binding Proteins by Monovalent Phage Display" <u>Biochemistry</u> 30(45):10832-10838 (1991)			
		*56	Marks et al., "By-Passing Immunization: Building High Affinity Human Antibodies by Chain Shuffling" <u>Bio/Technology</u> 10:779-783 (1992)			
	!	*57	Marks et al., "By-Passing Immunization: Human Antibodies From V-gene Libraries Displayed On Phage" J. Mol. Biol. 222:581-597 (1991)			
		*58	McCafferty et al., "Phage antibodies: filamentous phage displaying antibody variable domains" <u>Nature</u> 348:552-554 (1990)			
		59	Metzger and Kinet, "How Antibodies Work: Focus on Fc Receptors	s* <u>FASEB J</u> 2(1):3-11 (J	anuary 1988)	
		<u>*</u> 60	Morimoto et al., "Single-step purification of F(ab') ₂ fragment (immunoglobulins G1) by hydrophobic interaction high performan Phenyl-5PW" Journal of Biochemical and Biophysical Methods 24:	nce liquid chromatograp 107-117 (1992)	hy using TSKgel	
		*61	Morrison et al., "Chimeric Human Antibody Molecules: Mouse Antigen-Binding Domains with Human Constant Region Domains" <u>Proc. Natl. Acad. Sci. USA</u> 81:6851-6855 (November 1984)			
		*62	Novotny et al., "Structural invariants of antigen binding: comparison of immunoglobulin V _L -V _H and V _L -V _L domain dimers" <u>Proc. Natl. Acad. Sci. USA</u> 82(14):4592-4596 (Jul 1985)			
		* 63	Oliyai and Borchardt, "Chemical pathways of peptide degradation. IV. Pathways, kinetics, and mechanism of degradation of an aspartyl residue in a model hexapeptide" <u>Pharmaceutical Research</u> 10(1):95-102 (Jan 1993)			
		*64	Pluckthun., "Antibodies From Escherichia coli." <u>The Pharmacology of Monoclonal Antibodies: Handbook of Experimental Pharmacology</u> , Rosenberg and Moore, eds., Berlin:Springer-Verlag, Chapter 11, Vol. 113:269-315 (1994)			
		*65	Presta et al., "Humanization of an Antibody Directed Against IgE" <u>J. Immunol.</u> 151(5):2623-2632 (September 1, 1993)			
		•66	Presta, L., "Antibody Engineering" Curr. Op. Struct. Biol. 2:593-596 (1992)			
		*67	Riechmann et al., "Reshaping Human Antibodies for Therapy" <u>Nature</u> 332:323-327 (Mar 24, 1988)			
		<u> </u>	Routledge et al., "A Humanized Monovalent CD3 Antibody which Can Activate Homologous Complement" 68 European Journal of Immunology 21:2717-2725 (1991)			
Exa	Examiner Date Considered					
Ex	Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

FORM PTO-1449 . U.S. Dept. of Comme			Atty Docket No.	Serial No.		
		Patent and Trademark Office	P1123R1D1C1	10/791,619		
١,	IST OF DI	SCLOSURES CITED BY APPLICANT	Applicant			
-			Lowman et al.	0		
	(Use se)	eral sheets if necessary)	Filing Date 3/2/04	Group 1644		
		OTHER DISCLOSURES (Including Author, Title, Date, F				
11	1/	Shearman et al., "Construction, Expression and Characterization the Human α/β T Cell Receptor" J. Immunol. 147(12):4366-4373 (De	of Humanized Antibod	ies Directed Against		
111	1.09	1				
	*70	Shields et al., "Inhibition of Allergic Reactions with Antibodies to IgE" <u>International Archives of Allergy and Immunology</u> 107(1-3):308-312 (May 1995)				
	*71.	Sims et al., "A Humanized CD18 Antibody Can Block Function Without Cell Destruction" The Journal of Immunology 151(4):2296-2308 (Aug 1993)				
	*72	Suresh et al., "Bispecific Monoclonal Antibodies from Hybrid Hybridomas" <u>Methods in Enzymology</u> 121:210-228 (1986)				
	*73	Tempest et al., "Reshaping a Human Monoclonal Antibody to Inhibit Human Respiratory Syncytial Virus Infection In Vivo" <u>Bio/Technology</u> 9:266-271 (March 1991)				
	*74	Tutt et al., "Trispecific F(ab')3 Derivatives That Use Cooperative Signaling Via the TCR/CD3 Complex and CD2 to Activate and Redirect Resting Cytotoxic T Cells" J. Immunol, 147(1):60-69 (1991)				
	*75	Verhoeyen et al., "Reshaping Human Antibodies: Grafting an Antilysozyme Activity" <u>Science</u> 239:1534-1536 (Mar 25, 1988)				
	*76	Waterhouse et al., "Combinatorial infection and in vivo recombin antibody repertoires" <u>Nucleic Acids Research</u> 21:2265-2266 (1993)				
M	*77	Yang et al., "CDR walking mutagenesis for the affinity maturatio into the picomolar range" <u>Journal of Molecular Biology</u> 254(3):39	n of a potent human a 2-403 (Dec 1, 1995)	anti-HIV-1 antibody		
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